

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
Federal-State Joint Board on)	Docket No. 96-45
Universal Service)	

***Ex Parte* Comments of the
Rural Utilities Service**

Introduction

The Rural Utilities Service (RUS) is a rural development agency of the United States Department of Agriculture. For over 50 years, RUS (formerly the Rural Electrification Administration) has been financing the construction of modern telecommunications systems throughout rural America. Today, RUS continues to promote rural telecommunications by providing financing, technical advice, and support to approximately 825 rural telephone companies and cooperatives nationwide.

Since the passage of the Telecommunications Act of 1996,¹ RUS has taken an active role on behalf of rural Americans by commenting on the actions taken by the Federal Communications Commission (Commission) as it has implemented the universal service provisions of the Telecom Act.² Throughout this process, RUS has worked to represent the interests of all rural Americans, not just those served by RUS-financed companies and cooperatives as the financing available under the Rural Electrification Act³ is intended to

1. Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996), codified at 47 U.S.C. §151 *et seq.* [hereinafter Telecom Act].

2. See www.usda.gov/rus/telecom/telecomact/act.htm where all RUS comments on the 1996 Act, universal service, and related issues can be found.

3. Rural Electrification Act of 1936 [7 U.S.C. 901-950b].

benefit all rural areas. Any qualifying rural area in America is eligible to receive financing, irrespective of whether the local exchange carrier (LEC) is considered rural or non-rural. Therefore, while this filing focuses on the universal service mechanism for non-rural LECs, it is critically important to rural carriers, as well, as the Commission has made it clear that it intends to eventually cover all carriers by a similar mechanism.⁴

While non-rural LECs serve the nation's cities, they also serve more rural customers than all rural LECs added together. These rural customers depend on a universal service mechanism to provide the incentive for their carriers to invest in modern telecommunications plant. After its phase in, the currently proposed Federal mechanism provides no universal service funding in the vast majority of states, and even in the majority of rural states.⁵ As such, most rural customers of non-rural LECs will be dependent entirely upon intrastate support mechanisms, which many states have not yet developed, to ensure reasonably comparable local service rates.

Although the set of non-rural LEC exchanges was frozen by the *First Report and Order*,⁶ many of those non-rural exchanges are now served by rural LECs, and improvements in some of those have been financed by RUS Telecommunications Program loans. The austerity of the Federal non-rural LEC support mechanism provides a difficult financial environment for funding such improvements. We believe that many more non-rural LEC exchanges will become part of rural LECs in the future. Rural exchanges of non-rural LECs need adequate universal support, and even if transferred, rely primarily on a mechanism that as of today only reaches into eight states.

This filing addresses issues raised in the Commission's February Notice of Proposed Rulemaking and Order.⁷ In this filing, we will demonstrate that the national average loop cost benchmark used by the Commission in computing the threshold for universal service support is much higher than the urban average loop cost, which is one reason that non-rural LECs in only a few states will qualify for this support. We will also demonstrate that statewide averaging of loop cost, employed in the non-rural LEC mechanism, hides many of the high cost customers, and is the other major reason why few states qualify. We offer comment on the inseparable issues of the meaning of the Telecom Act's

4. See *In the Matter of Federal State Joint Board on Universal Service and Multi-Association Group (MAG) Plan for Regulation of Interstate Services of Non-Price Cap Incumbent Local Exchange Carriers and Interexchange Carriers*, Fourteenth Report and Order, Twenty-second Order on Reconsideration, and Further Notice of Proposed Rulemaking, CC Docket No. 96-45 and Report and Order, CC Docket No. 00-256 (rel. May 23, 2001) at ¶ 29.

5. Currently, excluding phase-in allowances, the only states supported by Federal non-rural LEC support are Alabama, Kentucky, Maine, Mississippi, Montana, Vermont, West Virginia and Wyoming.

6. See *In the Matter of Federal State Joint Board on Universal Service*, First Report and Order, CC Docket 96-45 (rel. May 8, 1997), at ¶ 308.

7. See *In the Matter of Federal State Joint Board on Universal Service*, Notice of Proposed Rulemaking and Order, CC Docket No. 96-45, (rel. Feb. 15, 2002).

statutory terms “reasonably comparable”⁸ and “sufficient”⁹ in conjunction with the Commission’s 135% funding threshold. These terms should be defined by comparing rural areas to urban areas as directed by the Telecom Act, not by comparing state averages to national averages.

Background

In the *Ninth Report and Order*,¹⁰ the Commission established the Federal universal service support mechanism for non-rural carriers. This mechanism is based on the forward-looking cost of providing service as estimated by a computer tool known as the Synthesis Cost Model. A state receives Federal support if the statewide average cost exceeds 135% of the national average.

Non-rural carriers with high cost service areas challenged several aspects of the mechanism established in the Ninth Order and the Tenth Circuit Court of Appeals remanded the mechanism to the Commission for reevaluation.¹¹ The Court focused on the meaning of reasonable comparability and sufficiency. This reevaluation is the subject of the current Notice. Thus the court, and the Commission, pose the following questions:

1. Is cost a reasonable proxy for rates?
2. What other factors may be affecting comparability and sufficiency?

8. With regard to the term “reasonably comparable:” Section 254(b)(3) provides that (c)onsumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications and information services, including interexchange and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas.

9. With regard to the term “sufficient:” Section 254(b)(5) provides that (t)here should be specific, predictable, and sufficient Federal and State mechanisms to preserve and advance universal service. Section 254(d) provides that (e)very telecommunications carrier that provides interstate telecommunications services shall contribute, on an equitable and nondiscriminatory basis, to the specific, predictable, and sufficient mechanisms established by the Commission to preserve and advance universal service. Section 254(e) provides that (a)fter the date on which Commission regulations implementing this section take effect, only an eligible telecommunications carrier designated under section 214(e) shall be eligible to receive specific Federal universal service support. A carrier that receives such support shall use that support only for the provision, maintenance, and upgrading of facilities and services for which the support is intended. Any such support should be explicit and sufficient to achieve the purposes of this section.

10. *See In the Matter of Federal State Joint Board on Universal Service*, Ninth Report and Order and Eighteenth Order on Reconsideration, CC Docket 96-45 (rel. Nov. 2, 1999). [hereinafter Ninth Order].

11. *Qwest Corp. v. FCC*, 258 F.3d 1191 (10th Cir. 2001).

Reasonably Comparable - Cost is a Practical Proxy for Rates

RUS believes that the term “reasonably comparable” means “very nearly the same.” Reasonable comparability of services is being addressed in other rulemakings. Therefore, in this filing, we focus on the reasonable comparability of rates. As a working proposition, we believe that the Commission’s cost-based approach of determining reasonable comparability is practical. That is, cost is a practical proxy for rates because as competition develops, rates set in excess of costs will not be sustainable.¹²

National Average Loop Cost is Much Higher than Urban Loop Cost

The Telecom Act looks for reasonable comparability and sufficiency in relation to urban areas, not in relation to national averages. The Commission has implemented a mechanism that establishes a threshold for Federal support based on the national average loop cost, rather than the average urban cost. Therefore, to determine whether the mechanism complies with the Telecom Act, we must determine whether the national average loop cost is reasonably comparable to the urban loop cost.

Of all of the statistical measures of centrality that could be used (mean, medium, and mode), the national average loop cost (or mean) is the one most distant from the urban average loop cost. Using the Commission’s published Synthesis Cost Model outputs, RUS has prepared a table demonstrating loop investments and the quantities of loops representing those investment levels. First, RUS sorted model outputs by carrier serving area (CSA). Then, we derived a representative urban average cost from the model results.¹³ Based on this analysis, the national average loop cost is \$672. This is much higher than the median (\$485), which is higher than the mode (\$425). Every statistical measure of centrality is higher than the urban average (\$390), and of the three, the national average is the least representative of urban cost (72% higher).

12. See *Supra* note 8 at ¶ 7.

13. The average urban loop investment is a weighted average for the following cities: Dallas, TX; Phoenix, AZ; Los Angeles, CA; New Orleans, LA; Atlanta, GA; San Francisco, CA; Denver, CO; St. Louis, MO; Nashville, TN; District of Columbia; Seattle, WA; Detroit, MI; Minneapolis, MN; Chicago, IL; Pittsburgh, PA; Boston, MA; and New York, NY. These 17 cities had a range of investment per line from \$170.68 (Boston) to \$531.41 (Detroit). Exchanges were included in the city sample if they have CLLI codes with the city designation.

Loop Cost Distribution as Calculated by Synthesis Cost Model

Investment \$/Loop	No. of Loops ¹⁴	
<25.12	5,042	
25.12-31.62	43,541	
31.63-39.81	87,455	
39.81-50.12	253,989	
50.12-63.10	529,086	
63.10-70.43	1,011,277	
79.43-100	1,586,329	
100-125.89	2,327,408	
125.89-158.49	3,634,278	
158.49-199.53	6,928,254	
199.53-251.19	10,551,416	
251.19-316.23	16,268,396	
319.23-398.11	26,298,018	◀ \$390 Urban Average
398.11-501.19	37,433,790	◀ \$425 Greatest Concentration (Mode)
501.19-630.96	31,159,276	◀ \$485 Center of Distribution (Median)
630.96-794.33	28,928,569	
794.33-1000	15,220,402	◀ \$672 National Arithmetic Average (Mean)
1000-1259	6,103,545	◀ \$907 135% of National Average
1259-1585	4,082,733	
1585-1995	2,483,335	
1995-2512	1,936,150	
2512-3162	1,779,629	
3162-3981	1,482,488	
3981-5012	1,091,218	
5012-6310	768,248	
6310-7943	511,792	
7943-10,000	233,378	
10,000-12,589	101,022	
12,589-15,849	47,555	
15,849-19,953	24,815	
19,953-25,119	14,555	
25,119-31,623	7,604	
31,623-39,811	4,098	
39,811-50,119	2,230	
50,119-63,096	1,143	
63,096-79,433	669	
79,433-100,000	328	
100,000-125,893	140	
125,893-158,489	54	
158,489-199,526	38	
199,526-251,189	28	
251,189-316,228	2	
316,228-398,107	1	

14. Includes special access lines.

The Ninth Order's 135% Mechanism is Insufficient and Unsustainable in a Competitive World

Again assuming that rates are driven to cost, the previous table demonstrates why the support mechanism developed by the Commission is not sufficient. National average loop investment (\$672) is 72% higher and the monthly revenue requirement of \$20.38 is 36% higher¹⁵ than the \$15 per month urban average. The Ninth Order's mechanism provides no support until the statewide average exceeds this eligibility threshold by another 35%.

Consider Kentucky where the state loop investment is 158% of the national average and the corresponding monthly revenue requirement of \$27.86 is 137%, just above the support threshold of 135%.¹⁶ If the state is to fulfill the responsibilities the Commission suggests are theirs, rates to support the loop¹⁷ would have to rise to 83% above the national urban average for everyone in Kentucky, including urban customers. If the state were to ignore this responsibility, and nothing in the Telecom Act requires a state to act, universal service would not be preserved and advanced as envisioned by the Act as nothing in the Commission's mechanism induces the state to act.

But the real problem is sustainability in a competitive world. Even if the states acted as the Commission expects, adjacent states would have wildly varying rates. Consider Virginia, Maryland, and the District of Columbia. The loop revenue requirement in the District of \$13.28 is 65% of the national average. In Maryland, it is \$18.47, or 91%, and in Virginia it is \$22.20, or 109%. Thus, rates to support the loop would have to be 39% higher in suburban Maryland and 67% higher in suburban Virginia than rates in the District. This is perhaps the most dramatic example in the country but rates would have to vary across state lines.¹⁸ Such disparities, by the Commission's own analysis, are unsustainable.¹⁹

Statewide Cost Averaging Transfers Enormous Financial Obligations to the States

The current Federal non-rural LEC mechanism provides that when a statewide average is below the support threshold of 135% of national average cost, no support flows to that state. Support of high cost loops in the state is the state's obligation. The two ways for

15. Rural cost is dominated by the loop. There is a direct but not proportional relationship between loop investment and the revenue requirement to support that investment. For the national non-rural average, the revenue requirement for the loop is approximately 87% of the total revenue requirement.

16. See www.fcc.gov/wcb/tapd/hcpm/welcome.htm. These figures were derived from the Wirecenter Support Spreadsheet.

17. Or a combination of rates and universal service charges, which amounts to the same thing.

18. Combining the examples demonstrates that customers in urban Louisville, KY will pay (just for the local loop) local rates of \$27.51, (bought down by Federal support from \$27.86) while customers in urban District of Columbia will pay \$13.28.

19. See *Supra* note 10.

the state to meet that obligation are for the state to develop a state support mechanism, which many states have not done, or for the state to employ large scale averaging which uses company revenues earned in low cost areas to support high cost areas.

The first problem with large-scale averaging is that it creates implicit support, such as a sharing of urban revenues to pay rural costs. Section 254(e) of the Telecom Act directs that all universal service support be explicit.

The second problem with large scale averaging is that competition makes it unsustainable. When competition arrives in urban areas, it will trim away the fat from urban telephone rates. Urban rates will migrate from the carrier's average loop cost to the carrier's average urban loop cost (either in actual rate reductions or in added value such as bundled long distance). This will be necessary for the carrier to compete, and if the carrier does not follow this migration it will lose urban customers. In either case, there will be less urban revenue to apply to high cost areas.

RUS has analyzed CSA and exchange costs using Synthesis Model results to quantify the effects of this averaging. The Synthesis Cost Model groups telephone customers into CSAs, and calculates the cost to serve them. CSA costs are grouped into exchange costs, and those can be grouped into carrier-wide and state-wide costs. Each stage in this grouping, or averaging, obscures important information about where high cost loops are and how high their cost is. We compared the cost of supporting high cost loops when averaging is at the statewide level, at the exchange level, and at the CSA level.

RUS selected two states for this example which seem to represent extremes in rurality. Massachusetts is typically viewed as a state with few high cost loops while Texas is viewed as a state with many high cost loops. In fact, neither state is eligible for Federal non-rural support funding. Texas has implemented a state universal service support mechanism, however Massachusetts has not.

For these analyses, two thresholds of support were used: (1) the existing threshold which is based on national average loop cost plus 35%, which is \$27.51 monthly; and (2) a Section 254-compliant threshold based on the average urban cost plus 35%, or \$20.25 monthly.²⁰

20. See www.fcc.gov/wcb/tapd/hcpm/welcome.htm. The \$27.51 benchmark represents 135% of \$20.38 which is the national average loop revenue requirement calculated from the Wirecenter Support Spreadsheet. The \$20.25 benchmark represents 135% of the \$15.00 average loop revenue requirement for the seventeen-city RUS urban sample. High Cost Lines include only switched lines. RUS derived the estimated monthly loop revenue requirements by comparing the wirecenter loop investments on the Results Zip File to the wirecenter loop revenue requirements shown on the Wirecenter Support Spreadsheet. The revenue requirements at the CSA level were derived similarly using the loop investments in the Workfiles Zip Files.

Massachusetts High Cost Support

Averaged Over:	135% National Average		135% Urban Average	
	Loop Support	Lines	Loop Support	Lines
State	\$0*	4,411,630	\$0*	4,411,630
Exchange	\$11,471,888	110,628	\$32,714,013	562,216
CSA	\$27,077,415	225,871	\$68,723,008	1,156,953

Texas High Cost Support

Averaged Over:	135% National Average		135% Urban Average	
	Loop Support	Lines	Loop Support	Lines
State	\$0*	11,477,745	\$0*	11,477,745
Exchange	\$261,379,388	1,239,429	\$414,738,742	2,583,606
CSA	\$409,105,717	917,936	\$525,092,568	3,365,978

* Federal support is \$0 because the statewide average does not exceed the Federal threshold of 135% of the national average loop cost or national average urban loop cost, respectively.

This table demonstrates that as averaging migrates from the CSA to the state level, less money (universal service support) must be allocated among more customers. For example, in Texas under the current mechanism, 1,239,429 customers would share \$261 million with exchange averaging, whereas only 917,936 customers would share \$409 million under CSA averaging.

Another interesting observation is that averaging only at the CSA level, using the existing Federal non-rural support threshold, Massachusetts has about one-third as many high cost loops (225,871) as Texas (917,936). Massachusetts may have a surprisingly high number of high cost loops, but the Texas high cost loops are 15 times as expensive as their cousins in Massachusetts.

Averaging at the CSA level, therefore, provides the best practical representation of the support actually needed to meet the Telecom Act's Principle of reasonable comparability. The "135% Urban Average" columns demonstrate the support that would be sufficient to ensure that rural rates are reasonably comparable to urban rates and this support can only come from three places: a Federal mechanism; a state mechanism; or an unsustainable rate-averaging mechanism.

It is critically important to note that support does more than maintain comparable rates. Without sufficient support, carriers are not provided with the necessary incentives to continue investing in high cost areas – investment that is vital to preserving and

advancing universal service. If the Federal mechanism provides none of this amount, as is the case for these two states, either the state must step in with a mechanism or Section 254 has no effect in this state.

For disbursement within the state, some states already calculate high cost at the exchange level. Averaging at the CSA targets support to the loops that need it. This finer degree of resolution identifies the genuinely high cost lines and does not assign this portable support to low cost customers in exchanges with high average cost.

These tables also demonstrate that high cost loops are not always found where expected. Massachusetts has 1.1 million loops with cost over 135% of the urban average cost. Providing sufficient support would cost \$69 million. Texas, which would require \$525 million to support 3.4 million lines, needs seven times as much to sufficiently support three times the number of lines.

Conclusion and Recommendations

The existing Federal non-rural LEC universal service support mechanism supports high cost loops only in states where the average loop cost exceeds approximately 183% of the RUS-computed national average urban loop cost (135% of the national average loop cost). This is the result of choosing the national average loop cost, rather than a national average urban loop cost, as the benchmark for support, and adding 35% to that benchmark as the threshold. When loop costs less than 183% of urban loops costs are not supported by a Federal plan, it is unlikely that rural rates can be reasonably comparable to urban rates.

The Federal mechanism, in using statewide averaging of costs for determining Federal support, depends on state universal service support systems to provide explicit support as needed within states, but many states have not developed state plans. As long as the majority of high cost non-rural LEC loops can be supported by study-area averaging in a state, the states may not be inclined to develop state universal service support systems.

However, whether a state chooses rate averaging or its own mechanism, using state averages and a “135% of national average” benchmark will result in wide and unsustainable rate disparities across state lines. And perhaps more important, without sufficient explicit support targeted to high cost lines, no carrier will receive the signals that encourage investment in high cost areas - investment crucial to the future of rural America.

The RUS recommends that the universal service mechanism developed by the Commission be based on the Telecom Act’s direction. We recommend adoption of a benchmark tied to the national average urban loop cost or another statistical indicator more representative of urban costs, not the national average cost.

We also recommend that costs not be averaged above the CSA level as this is the only way to determine the need and properly target support to the genuinely high cost areas. We do not object to a proportional benchmark (perhaps even the existing 135%) that the Commission may find quantifies the concept of reasonable comparability of rates. We also encourage the Commission to work diligently in partnership with the states to ensure that the promise of Section 254 is realized for all of rural America.

Economic development in rural America depends on the universal service envisioned in Section 254 of the Telecom Act. Without a Federal non-rural support mechanism that identifies the nation's highest cost loops and supports them, rural families, schools, farms and businesses served by the non-rural LECs will have the distinction of being served by the nation's oldest telephone plant.



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MAY 22 2002

Date